PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION *US/08/901,612*

1809

DATE: 10/10/97
TIME: 18:22:30

INPUT SET: S20953.raw

This Raw Listing contains the General
Information Section and up to the first 5 pages.

```
1                              SEQUENCE LISTING
2
3   (1)    General Information:
4
5      (i) APPLICANT: Frank, Bruce L.
6                     Roberts, Peter C.
7                     Goodchild, John
8                     Craig, J. Charles
9                     Mills, John S.
10                     Slade, Andrew
11                     Roberts, Noel A.
12                     Jupp, Raymond
13
14    (ii) TITLE OF INVENTION: OLIGONUCLEOTIDES SPECIFIC FOR HEPATITIS
15          B VIRUS
16
17   (iii) NUMBER OF SEQUENCES:  56
18
19    (iv) CORRESPONDENCE ADDRESS:
20          (A) ADDRESSEE: Lappin & Kusmer
21          (B) STREET: 200 State Street
22          (C) CITY: Boston
23          (D) STATE: MA
24          (E) COUNTRY: USA
25          (F) ZIP: 02109
26
27     (v) COMPUTER READABLE FORM:
28          (A) MEDIUM TYPE: Floppy disk
29          (B) COMPUTER: IBM PC compatible
30          (C) OPERATING SYSTEM: PC-DOS/MS-DOS
31          (D) SOFTWARE: PatentIn Release #1.0, Version #1.25
32
33    (vi) CURRENT APPLICATION DATA:
34          (A) APPLICATION NUMBER: 08/901,612
35          (B) FILING DATE: 28-JUL-1997
36          (C) CLASSIFICATION: 514
37
38   (vii) PRIOR APPLICATION DATA:
39          (A) APPLICATION NUMBER: 08/467,397
40          (B) FILING DATE:
41
42  (viii) ATTORNEY/AGENT INFORMATION:
43          (A) NAME: Kerner, Ann-Louise
44          (B) REGISTRATION NUMBER: 33,523
45          (C) REFERENCE/DOCKET NUMBER: HYZ-041
46
```

```
47        (ix) TELECOMMUNICATION INFORMATION:
48              (A) TELEPHONE: 617-330-1300
49              (B) TELEFAX: 617-330-1311
50
51
52   (2) INFORMATION FOR SEQ ID NO:1:
53
54        (i) SEQUENCE CHARACTERISTICS:
55              (A) LENGTH: 20 base pairs
56              (B) TYPE: nucleic acid
57              (C) STRANDEDNESS: single
58              (D) TOPOLOGY: linear
59
60        (ii) MOLECULE TYPE: DNA
61
62       (iii) HYPOTHETICAL: NO
63
64        (iv) ANTI-SENSE: YES
65
66        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
67
68   GGTGCGCAGA CCAATTTATG                                    20
69
70   (2) INFORMATION FOR SEQ ID NO:2:
71
72        (i) SEQUENCE CHARACTERISTICS:
73              (A) LENGTH: 19 base pairs
74              (B) TYPE: nucleic acid
75              (C) STRANDEDNESS: single
76              (D) TOPOLOGY: linear
77
78        (ii) MOLECULE TYPE: DNA
79
80       (iii) HYPOTHETICAL: NO
81
82        (iv) ANTI-SENSE: YES
83
84        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
85
86   CATGGTGCTG GTGCGCAGA                                     19
87
88   (2) INFORMATION FOR SEQ ID NO:3:
89
90        (i) SEQUENCE CHARACTERISTICS:
91              (A) LENGTH: 20 base pairs
92              (B) TYPE: nucleic acid
93              (C) STRANDEDNESS: single
94              (D) TOPOLOGY: linear
95
96        (ii) MOLECULE TYPE: DNA
97
98       (iii) HYPOTHETICAL: NO
99
```

INPUT SET: S20953.raw

```
100         (iv) ANTI-SENSE: YES
101
102         (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:
103
104    GAAAAAGTTG CATGGTGCTG                                        20
105
106    (2) INFORMATION FOR SEQ ID NO:4:
107
108          (i) SEQUENCE CHARACTERISTICS:
109               (A) LENGTH: 20 base pairs
110               (B) TYPE: nucleic acid
111               (C) STRANDEDNESS: single
112               (D) TOPOLOGY: linear
113
114         (ii) MOLECULE TYPE: DNA
115
116        (iii) HYPOTHETICAL: NO
117
118         (iv) ANTI-SENSE: YES
119
120         (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:
121
122    GAGGTGAAAA AGTTGCATGG                                        20
123
124    (2) INFORMATION FOR SEQ ID NO:5:
125
126          (i) SEQUENCE CHARACTERISTICS:
127               (A) LENGTH: 20 base pairs
128               (B) TYPE: nucleic acid
129               (C) STRANDEDNESS: single
130               (D) TOPOLOGY: linear
131
132         (ii) MOLECULE TYPE: DNA
133
134        (iii) HYPOTHETICAL: NO
135
136         (iv) ANTI-SENSE: YES
137
138         (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:
139
140    AGGCAGAGGT GAAAAAGTTG                                        20
141
142    (2) INFORMATION FOR SEQ ID NO:6:
143
144          (i) SEQUENCE CHARACTERISTICS:
145               (A) LENGTH: 12 base pairs
146               (B) TYPE: nucleic acid
147               (C) STRANDEDNESS: single
148               (D) TOPOLOGY: linear
149
150         (ii) MOLECULE TYPE: DNA
151
152        (iii) HYPOTHETICAL: NO
```

```
153
154        (iv) ANTI-SENSE: YES
155
156        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:
157
158   AGGCAGAGGT GA                                              12
159
160   (2) INFORMATION FOR SEQ ID NO:7:
161
162        (i) SEQUENCE CHARACTERISTICS:
163            (A) LENGTH: 20 base pairs
164            (B) TYPE: nucleic acid
165            (C) STRANDEDNESS: single
166            (D) TOPOLOGY: linear
167
168        (ii) MOLECULE TYPE: DNA
169
170       (iii) HYPOTHETICAL: NO
171
172        (iv) ANTI-SENSE: YES
173
174        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:
175
176   AGAGATGATT AGGCAGAGGT                                      20
177
178   (2) INFORMATION FOR SEQ ID NO:8:
179
180        (i) SEQUENCE CHARACTERISTICS:
181            (A) LENGTH: 30 base pairs
182            (B) TYPE: nucleic acid
183            (C) STRANDEDNESS: single
184            (D) TOPOLOGY: linear
185
186        (ii) MOLECULE TYPE: DNA
187
188       (iii) HYPOTHETICAL: NO
189
190        (iv) ANTI-SENSE: YES
191
192        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:
193
194   GACATGAACA AGAGATGATT AGGCAGAGGT                           30
195
196   (2) INFORMATION FOR SEQ ID NO:9:
197
198        (i) SEQUENCE CHARACTERISTICS:
199            (A) LENGTH: 20 base pairs
200            (B) TYPE: nucleic acid
201            (C) STRANDEDNESS: single
202            (D) TOPOLOGY: linear
203
204        (ii) MOLECULE TYPE: DNA
205
```

```
206        (iii) HYPOTHETICAL: NO
207
208         (iv) ANTI-SENSE: YES
209
210         (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:
211
212    GACATGTACA AGAGATGATT                                    20
213
214    (2) INFORMATION FOR SEQ ID NO:10:
215
216          (i) SEQUENCE CHARACTERISTICS:
217              (A) LENGTH: 20 base pairs
218              (B) TYPE: nucleic acid
219              (C) STRANDEDNESS: single
220              (D) TOPOLOGY: linear
221
222         (ii) MOLECULE TYPE: DNA
223
224        (iii) HYPOTHETICAL: NO
225
226         (iv) ANTI-SENSE: YES
227
228         (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:
229
230    GTAGGACATG AACAAGAGAT                                    20
231
232    (2) INFORMATION FOR SEQ ID NO:11:
233
234          (i) SEQUENCE CHARACTERISTICS:
235              (A) LENGTH: 20 base pairs
236              (B) TYPE: nucleic acid
237              (C) STRANDEDNESS: single
238              (D) TOPOLOGY: linear
239
240         (ii) MOLECULE TYPE: DNA
241
242        (iii) HYPOTHETICAL: NO
243
244         (iv) ANTI-SENSE: YES
245
246         (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:
247
248    TTGGAGGCTT GAACAGTAGG                                    20
249
250    (2) INFORMATION FOR SEQ ID NO:12:
251
252          (i) SEQUENCE CHARACTERISTICS:
253              (A) LENGTH: 20 base pairs
254              (B) TYPE: nucleic acid
255              (C) STRANDEDNESS: single
256              (D) TOPOLOGY: linear
257
258         (ii) MOLECULE TYPE: DNA
```

SEQUENCE VERIFICATION REPORT
PATENT APPLICATION   *US/08/901,612*

INPUT SET: S20953.raw

Line	Error	Original Text